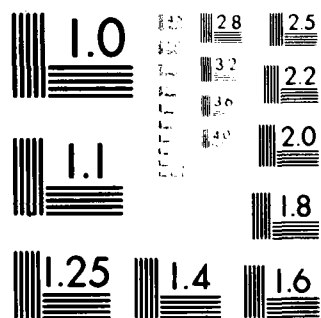


AD-A087 457 ARMY ELECTRONICS RESEARCH AND DEVELOPMENT COMMAND WS--ETC F/6 4/2
19702A MLRS, MISSILE NUMBER BR-12, ROUND NUMBER B-80, 7 FEBRUAR--ETC(U)
FEB 80

UNCLASSIFIED ERADCOM/ASL-DR-1126

NL

END
BATT
FILMED
9-80
DTIC



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED

✓ OR 1126
FEBRUARY 1980
AD

LEVEL II

12
B.S.

ADA087457

METEOROLOGICAL DATA REPORT

19702A MLRS
Missile No. BR-12
Round No. B-80
07 February 1980

by

White Sands Meteorological Team

THIS DOCUMENT IS BEST QUALITY PRACTICABLE.
THE COPY FURNISHED TO DDC CONTAINED A
SIGNIFICANT NUMBER OF PAGES WHICH DO NOT
REPRODUCE LEGIBLY.

✓
ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

ECOM

UNITED STATES ARMY ELECTRONICS COMMAND

DTIC
ELECTE
AUG 5 1980
S D

DDC FILE COPY

80 8 4 254

DISPOSITION INSTRUCTIONS

Destroy this report when it is no longer needed. Do not return to the originator.

DISCLAIMER

The findings in this report are not to be construed as an official Department of the Army position, unless so designated by other authorized documents.

The citation of trade names and names of manufacturers in this report is not to be construed as official Government indorsement or approval of commercial products or services referenced herein.

DISCLAIMER NOTICE

**THIS DOCUMENT IS BEST QUALITY
PRACTICABLE. THE COPY FURNISHED
TO DTIC CONTAINED A SIGNIFICANT
NUMBER OF PAGES WHICH DO NOT
REPRODUCE LEGIBLY.**

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER DR 1126	2. GOVT ACCESSION NO. AD-A087457	3. DO NOT WRITE IN THESE SPACES
4. TITLE (and Subtitle) 19702A MLRS, Missile Number BR-12, Round Number B-80, 7 February 1984.		5. SEE IF REPORT IS A PERIODIC COVERED
6. AUTHOR(S) White Sands Meteorological data rept.		7. PERFORMING ORG. REPORT NUMBER
8. PERFORMING ORGANIZATION NAME AND ADDRESS ERADCOM/ASL-DR-1126		9. CONTRACT OR GRANT NUMBER (if any) DA Task/1F665702D127-02
10. CONTROLLING OFFICE NAME AND ADDRESS US Army Electronics Research & Development Cmd Atmospheric Sciences Laboratory White Sands Missile Range, New Mexico 88002		11. PROGRAM ELEMENT PROJECT, TASK AREA & WORK UNIT NUMBER 12/18
12. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) US Army Electronics Research & Development Cmd Adelphi, MD 20783		13. REPORT DATE 11 February 1984
14. DISTRIBUTION STATEMENT (of this Report) <div style="border: 1px solid black; padding: 5px; text-align: center;">DISTRIBUTION STATEMENT A Approved for public release; Distribution Unlimited</div>		15. SECURITY CLASS. (of this report) UNCLASSIFIED
16. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report) Approved for public release; distribution unlimited.		17. DECLASSIFICATION/DOWNGRADING SCHEDULE
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number)		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for the launching of the 19702A MLRS, Missile Number BR-12, Round Number B-80 are presented in tabular form.		

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

410663 1

18

CONTENTS

INTRODUCTION	1
DISCUSSION	1
LAUNCH AREA MAP	2
GENERAL AREA MAP	3
TABLES:	
1. Surface Observation taken at 1400 MST at LC-33	4
2. Anemometer-Measured Wind Speed and Direction, LC-33 Fixed Pole, taken at 1400 MST	5
3. Anemometer-Measured Wind Speed and Direction, Tower Levels 1, 2, 3 and 4, taken at 1400 MST	5
4. LC-33 Pilot-Balloon-Measured Wind Data at 1400 MST	6
5. Nick Site Pilot-Balloon-Measured Wind Data at 1400 MST	7
6. WSD Significant Level Data at 1400 MST	8
7. WSD Upper Air Data at 1400 MST	9
8. WSD Mandatory Levels at 1400 MST	10

Accession For	
NTIS GRA&I	<input checked="" type="checkbox"/>
DDC TAB	<input type="checkbox"/>
Unannounced Justification	
By _____	
Distribution/	
Availability Codes	
Dist	Avail and/or special
A	23

INTRODUCTION

19702A MLRS, Missile Number BR-12, Round Number B-80,
was launched from LC-33, White Sands Missile Range (WSMR), New Mexico,
at 1400 MST on 07 February 1980. The scheduled launch time was
1400 MST.

DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team. Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

1. Observations

a. Surface

(1) Standard surface observations to include pressure, temperature ($^{\circ}\text{C}$), relative humidity, dew point ($^{\circ}\text{C}$), density (gm/m^3), Wind direction and speed, and cloud cover were made at the LC-33 Met Site at T-0 minutes.

(2) Anemometer data were provided from existing pole-mounted and tower-mounted anemometers at LC-33. Monitor of wind speed and direction from one anemometer was also provided in the launch control room.

b. Upper Air

(1) Low level wind data were obtained from RPTS T-9 pibal observation at:

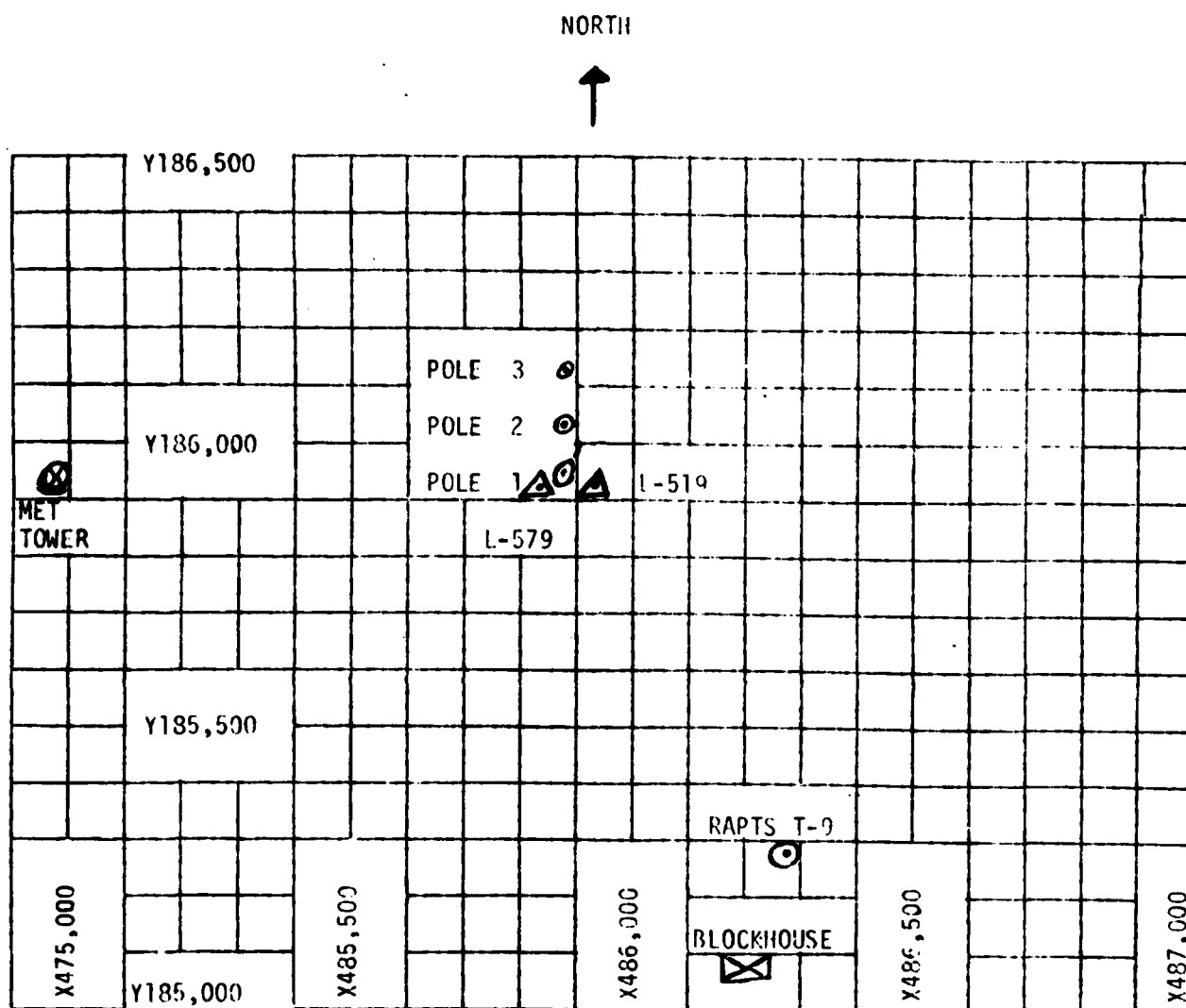
SITE AND ALTITUDE

LC-33	2 km
Nick	2 km

(2) Air structure data (rawinsonde) were collected at the following Met Sites. Data were collected from surface to 73,000 feet in 500-foot increments.

SITE AND TIME

WSD 1400 MST



1. MET TOWER - 4 Bendix Model T-20 Anemometers at 12 ft, 62 ft, 102 ft, and 202 ft with E/A recorders.
2. POLE ANEMOMETER - Bendix Model T-120 with E/A recorders.
 - (a) Pole #1 - 38.7 ft.
 - (b) Pole #2 - 53.0 ft.
 - (c) Pole #3 - 83.6 ft.
3. RAPTS T-9 Radar Automatic Pilot-Balloon Tracking System T-9 Radar.

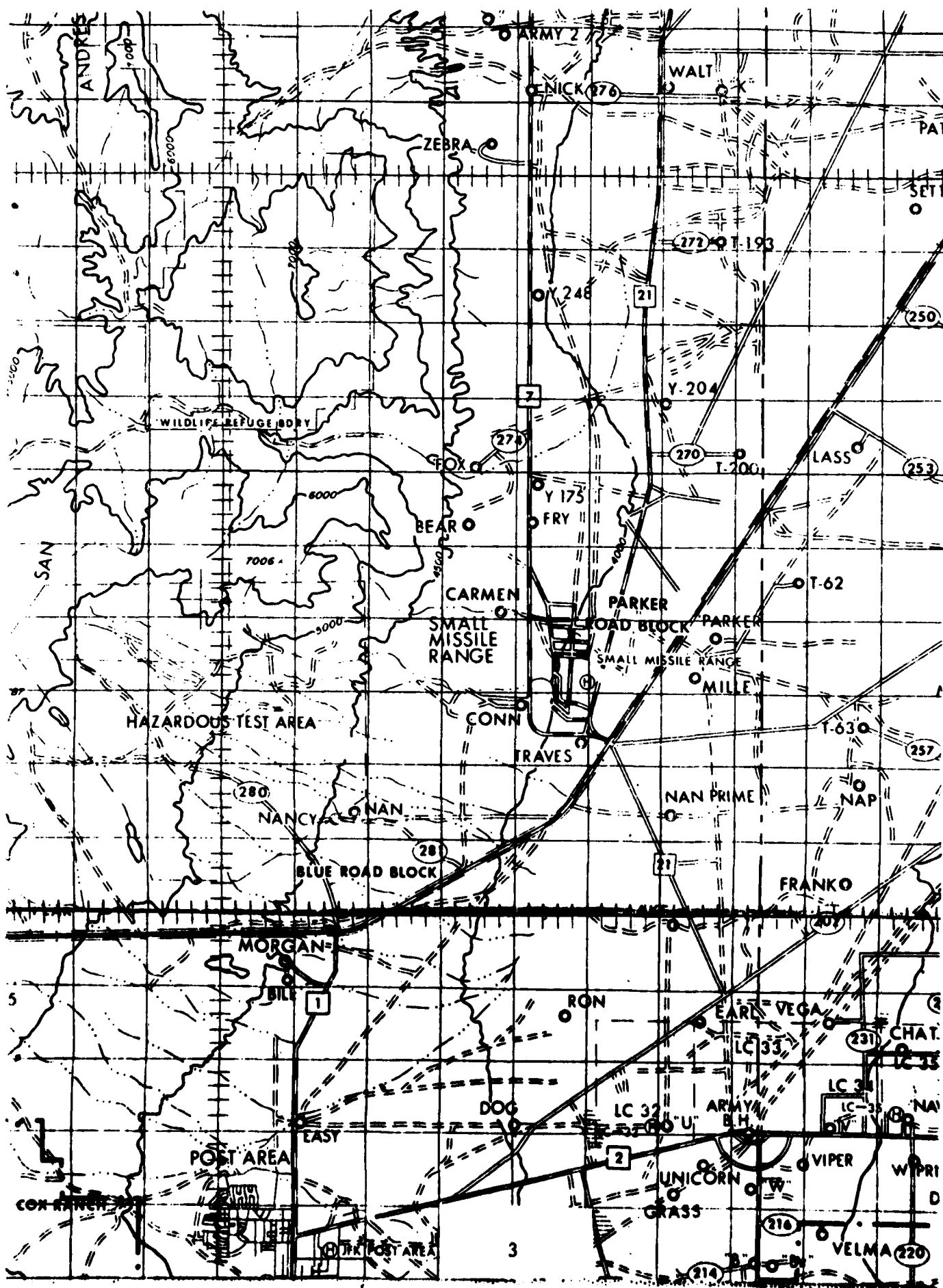


TABLE 1. Surface Observations taken at 1400 MST,
07 February 1980, at LC-33, 19702A MLRS,
Missile Number BR-12, Round Number B-80.

ELEVATION	3983.0	FT/MSL
PRESSURE	868.0	MRS
TEMPERATURE	18.8	°C
RELATIVE HUMIDITY	21	%
DEW POINT	-3.9	°C
DENSITY	1032	GM/M ³
WIND SPEED	15	KTS
WIND DIRECTION	255	DEGREES
CLOUD COVER	3	CU

TABLE 2

LC-33 FIXED POLE ANEMOMETER MEASURED WINDS

POLE #1 X485,874.29 Y185,958.90 H4018.74 38.7 ft. AGL			POLE #2 X485,874.93 Y186,012.00 H4033.57 53.0 ft. AGL			POLE #3 X485,877.29 Y186,116.06 H4063.92 83.6 ft. AGL		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
-30	272	08	-30	252	08	-30	267	09
-20	274	09	-20	260	10	-20	262	09
-10	287	12	-10	262	10	-10	250	13
0.0	279	15	0.0	293	09	0.0	262	18
+10	288	17	+10	MISG	MISG	+10	250	18

TABLE

3

LC-33 METEOROLOGICAL TOWER ANEMOMETER MEASURED WINDS (202 FT TOWER)

LEVEL #1, 12 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #2, 62 FEET X484,982.64, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
-30	268	10	-30	265	17
-20	253	11	-20	264	15
-10	255	09	-10	240	19
0.0	234	13	0.0	257	24
+10	259	17	+10	264	25

LEVEL #3, 102 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #4, 202 FEET X484,982, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
-30	273	19	-30	248	21
-20	248	19	-20	240	19
-10	248	27	-10	253	19
0.0	261	21	0.0	255	18
+10	262	24	+10	273	24

PILOT BALLOON MEASURED WIND DATA

TABLE 4

RELEASED FROM LC-33

DATE 07 February 1980

TIME 1400 MST

TRACKER

COORDINATES (WSTM) X= 486,037.24

$$Y = 182,350.16$$

14- 3972.30

NOTE: WIND DIRECTIONS ARE REFERENCED TO TRUE NORTH

HEIGHTS ARE METERS AGL XX OR FEET AGL .

[illegible][illegible][illegible]

PILOT BALLOON MEASURED WIND DATA

TABLE 5

RELEASED FROM **Nick** DATE **07 February 1980** TIME **1400 MST**

TRACKER COORDINATES (WSTM) X= **470,734.56** Y= **255,775.64** H= **4126.57**

NOTE: WIND DIRECTIONS ARE REFERENCED TO TRUE NORTH

HEIGHTS ARE METERS AGL~~XX~~ OR FEET AGL.

[illegible][illegible][illegible]

STATION ALTITUDE 3989.00 FEET MSL
7 FEB. 80
ASCENSION NO. 59

SIGNIFICANT LEVEL DATA
0380020059
WHITE SANDS
TABLE 6

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE		REL. HUM. PERCENT
	AIR DEGREES	DEWPOINT CENTIGRADE	
868.2	19.5	-2.2	23.0
850.0	15.0	-2.0	31.0
764.4	5.6	-7.0	37.0
700.0	-1.1	-9.0	51.0
684.2	-1.5	-10.5	50.0
655.4	-4.7	-13.0	52.0
618.2	-8.1	-15.7	50.0
583.2	-12.0	-19.8	52.0
539.6	-14.5	-22.9	49.0
500.0	-19.4	-35.6	20.0
449.8	-25.8	-42.0	20.0
400.0	-31.5	-44.2	27.0
382.4	-33.8	-48.0	22.0
345.6	-39.6	-53.1	22.0
300.0	-46.7		
274.2	-50.8		
269.2	-50.2		
264.2	-46.8		
259.4	-46.4		
250.0	-47.5		
241.6	-46.8		
235.6	-43.3		
230.8	-41.6		
221.4	-41.8		
212.8	-43.9		
208.6	-43.2		
200.0	-43.6		
183.6	-44.7		
164.0	-49.7		
150.0	-52.3		
127.4	-57.7		
123.8	-57.4		
113.6	-60.8		
110.5	-60.0		
100.0	-62.3		
84.2	-59.0		
70.0	-62.6		
50.0	-61.2		
47.6	-58.4		
38.8	-50.3		

STATION ALTITUDE 9989.00 FEET MSL
7 FEB. 80 1400 HRS MST
ASCENSION NO. 59

UPPER AIR DATA
0360020059
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 7

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUMID. PERCENT	DENSITY GV/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
3589.0	868.2	19.5	23.0	1031.1	657.2	250.0	9.9	1.000253
4000.0	867.9	19.4	23.1	1031.0	657.1	250.3	10.0	1.000253
4500.0	852.5	15.6	22.9	1020.0	662.6	251.0	13.7	1.000253
5000.0	837.1	13.8	31.9	1014.0	660.7	267.0	17.6	1.000249
5500.0	822.0	12.3	32.9	1000.8	659.0	270.6	21.7	1.000245
6000.0	807.1	10.9	33.9	987.8	657.3	273.3	25.8	1.000241
6500.0	792.5	9.5	35.0	975.0	655.6	275.2	30.0	1.000237
7000.0	778.1	8.0	36.0	962.3	653.9	276.6	34.2	1.000233
7500.0	764.0	6.6	37.1	949.9	652.1	279.1	38.5	1.000229
8000.0	749.8	5.1	40.1	937.0	650.5	281.4	42.8	1.000226
8500.0	735.9	3.7	43.0	924.3	648.8	287.5	43.8	1.000223
9000.0	722.2	2.3	46.0	911.9	647.1	292.5	46.4	1.000220
9500.0	708.8	.9	49.0	899.6	645.4	224.8	45.8	1.000216
10000.0	695.5	-.5	50.7	887.2	643.8	201.5	49.5	1.000213
10500.0	682.4	-1.7	50.1	874.4	642.3	175.7	42.9	1.000209
11000.0	669.4	-3.1	51.0	862.4	640.6	168.8	21.7	1.000205
11500.0	656.7	-4.6	51.9	850.6	638.9	278.2	28.5	1.000201
12000.0	644.1	-5.7	51.4	838.0	637.5	277.2	52.7	1.000198
12500.0	631.7	-6.8	50.7	825.4	636.1	259.0	51.2	1.000194
13000.0	619.5	-8.0	50.1	813.0	634.7	246.5	50.8	1.000190
13500.0	607.4	-9.3	50.6	801.1	633.1	245.6	47.4	1.000187
14000.0	595.5	-10.6	51.3	789.5	631.5	247.5	47.2	1.000184
14500.0	583.9	-11.9	52.0	778.0	629.9	248.5	48.3	1.000180
15000.0	572.4	-12.6	51.3	754.7	629.1	249.2	54.3	1.000177
15500.0	561.1	-13.2	50.5	751.5	628.3	249.7	61.6	1.000174
16000.0	550.0	-13.9	49.7	738.5	627.5	250.6	66.5	1.000170
16500.0	539.1	-14.6	48.6	725.8	626.7	251.7	69.8	1.000167
17000.0	528.3	-15.9	40.9	714.9	625.1	252.7	72.8	1.000163
17500.0	517.7	-17.2	33.2	704.2	623.4	253.8	73.2	1.000160
18000.0	507.5	-18.5	25.5	693.7	621.8	254.8	73.5	1.000157
18500.0	497.1	-19.8	20.0	683.2	620.2	255.7	74.9	1.000154
19000.0	486.9	-21.0	20.0	672.6	618.7	256.5	76.7	1.000151
19500.0	476.9	-22.3	20.0	662.1	617.1	257.5	80.2	1.000149
20000.0	467.1	-23.5	20.0	651.8	615.6	258.6	83.9	1.000146
20500.0	457.6	-24.8	20.0	641.6	614.0	260.9	80.0	1.000144
21000.0	448.1	-26.0	20.2	631.5	612.5	263.6	76.3	1.000142
21500.0	438.7	-27.0	21.5	621.9	611.2	266.0	73.8	1.000139
22000.0	429.5	-28.0	22.8	610.4	610.0	268.6	75.0	1.000137
22500.0	420.5	-29.1	24.0	600.1	608.7	268.5	76.9	1.000134
23000.0	411.7	-30.1	25.3	590.0	607.4	266.2	79.2	1.000132

STATION ALTITUDE 3989.00 FEET MSL
7 FEB. 80 1400 HRS MST
ASCENSION NO. 59

UPPER AIR DATA
C380020059
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.57033 LON DEG

TABLE 7 (cont)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (TYP) DEGREES	SPEED KNOTS	INDEX OF REFRACTION
23500.0	403.0	-31.1	26.6	580.1	606.1	265.7	83.3	1.000130
24000.0	394.5	-32.2	25.5	579.3	604.7	265.4	87.1	1.000128
24500.0	386.0	-33.3	23.1	566.7	603.3	265.1	89.2	1.000125
25000.0	377.7	-34.5	22.0	551.4	601.8	264.9	91.2	1.000123
25500.0	369.5	-35.8	22.0	542.3	600.3	264.6	91.5	1.000121
26000.0	361.5	-37.0	22.0	533.3	598.7	264.3	91.6	1.000119
26500.0	353.7	-38.3	22.0	524.5	597.1	263.7	91.7	1.000117
27000.0	346.0	-39.5	22.0	515.9	595.5	263.0	91.7	1.000115
27500.0	339.3	-40.7	18.7**	506.9	594.0	262.5	88.6	1.000113
28000.0	330.8	-41.8	15.2**	498.0	592.6	262.0	84.7	1.000111
28500.0	323.4	-42.9	11.7**	489.3	591.1	260.3	76.7	1.000109
29000.0	316.2	-44.1	8.2**	480.8	589.7	258.1	68.6	1.000107
29500.0	309.1	-45.2	4.7**	472.4	588.2	254.2	63.2	1.000105
30000.0	302.2	-46.3	1.1**	464.2	586.7	250.0	58.7	1.000103
30500.0	295.4	-47.4		455.8	585.3	247.4	57.5	1.000102
31000.0	288.6	-48.5		447.5	584.0	246.0	56.2	1.000100
31500.0	282.0	-49.5		439.3	582.6	247.0	54.5	1.000098
32000.0	275.6	-50.6		431.3	581.2	249.2	55.4	1.000096
32500.0	269.3	-50.2		423.7	581.7	252.7	60.6	1.000094
33000.0	263.1	-46.7		404.8	586.2	255.0	67.5	1.000090
33500.0	257.2	-46.7		395.6	586.3	256.1	76.8	1.000088
34000.0	251.3	-47.3		387.8	585.4	255.3	80.3	1.000086
34500.0	245.6	-47.1		378.6	585.7	253.3	79.5	1.000084
35000.0	240.1	-45.9		368.1	587.2	251.5	82.0	1.000082
35500.0	234.7	-43.0		355.2	591.0	250.2	85.7	1.000079
36000.0	229.5	-41.6		345.3	592.8	249.5	91.4	1.000077
36500.0	224.4	-41.7		337.8	592.6	248.5	95.2	1.000075
37000.0	219.4	-42.3		331.1	592.0	246.7	94.8	1.000074
37500.0	214.6	-43.5		325.4	590.4	245.1	93.8	1.000072
38000.0	209.8	-43.4		316.1	590.5	244.0	91.1	1.000071
38500.0	205.1	-43.4		310.9	590.6	243.5	88.2	1.000069
39000.0	200.5	-43.6		304.3	590.3	244.0	84.7	1.000068
39500.0	196.0	-43.9		297.8	589.9	246.2	81.9	1.000066
40000.0	191.7	-44.1		291.6	589.5	248.5	80.2	1.000065
40500.0	187.4	-44.4		285.4	589.2	251.0	79.0	1.000064
41000.0	183.2	-44.8		279.4	588.7	253.7	78.4	1.000062
41500.0	179.0	-45.8		274.3	587.4	256.4	78.4	1.000061
42000.0	175.0	-46.8		269.3	586.1	259.3	80.7	1.000060
42500.0	171.0	-47.8		264.4	584.8	262.1	83.3	1.000059
43000.0	167.1	-48.9		259.6	583.4	263.3	85.4	1.000058

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3989.00 FEET MSL
7 FEB. 69
ASCENSION NO. 59

UPPER AIR DATA
0380020059
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 8 (cont)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (TN) DEGREES	SPEED KNOTS	INDEX OF REFRACTION
43500.0	163.3	-49.8		254.8	562.2	264.2	87.5	1.000057
44000.0	159.6	-50.5		249.7	561.3	265.0	87.6	1.000056
44500.0	155.9	-51.2		244.6	560.4	265.4	83.7	1.000054
45000.0	152.3	-51.9		239.7	579.5	265.8	79.7	1.000053
45500.0	148.8	-52.6		234.9	578.6	265.9	75.5	1.000052
46000.0	145.3	-53.4		230.3	577.6	266.0	71.2	1.000051
46500.0	141.9	-54.1		225.7	576.5	265.8	71.4	1.000050
47000.0	138.5	-54.9		221.2	575.5	265.7	72.5	1.000049
47500.0	135.3	-55.7		216.8	574.5	266.0	75.6	1.000048
48000.0	132.1	-56.5		212.4	573.4	267.5	79.1	1.000047
48500.0	129.0	-57.3		208.2	572.4	267.4	79.8	1.000046
49000.0	126.0	-57.6		203.6	572.0	267.1	80.0	1.000045
49500.0	123.0	-57.7		198.8	571.9	266.3	77.2	1.000044
50000.0	120.0	-58.6		194.9	570.6	265.0	72.2	1.000043
50500.0	117.2	-59.6		191.1	569.3	264.5	67.0	1.000043
51000.0	114.4	-60.5		187.4	568.1	265.6	61.6	1.000042
51500.0	111.6	-60.3		182.7	568.4	266.9	56.7	1.000041
52000.0	108.9	-60.3		178.3	568.3	268.4	55.0	1.000040
52500.0	106.3	-60.9		174.5	567.6	270.0	53.3	1.000039
53000.0	103.8	-61.5		170.7	566.8	272.1	54.2	1.000038
53500.0	101.3	-62.0		167.1	566.1	274.1	55.6	1.000037
54000.0	98.8	-62.1		163.1	566.0	278.5	50.8	1.000036
54500.0	96.4	-61.6		158.8	566.6	285.6	43.2	1.000035
55000.0	94.1	-61.1		154.7	567.3	295.3	35.9	1.000034
55500.0	91.9	-60.7		150.6	567.9	305.7	26.3	1.000034
56000.0	89.6	-60.2		146.7	568.5	320.5	18.4	1.000033
56500.0	87.5	-59.7		142.8	569.1	338.0	13.9	1.000032
57000.0	85.4	-59.3		139.1	569.7	340.2	9.8	1.000031
57500.0	83.3	-59.2		135.7	569.8	336.2	6.2	1.000030
58000.0	81.3	-59.7		132.7	569.2	291.9	7.2	1.000030
58500.0	79.4	-60.2		129.8	568.6	298.4	10.9	1.000029
59000.0	77.5	-60.6		127.0	567.9	296.9	20.8	1.000028
59500.0	75.6	-61.1		124.2	567.3	296.2	33.8	1.000028
60000.0	73.8	-61.6		121.5	566.7	295.5	45.2	1.000027
60500.0	72.0	-62.0		118.8	566.0	297.5	48.4	1.000026
61000.0	70.3	-62.5		116.2	565.4	299.2	51.6	1.000026
61500.0	68.6	-62.5		113.4	565.4	293.7	39.5	1.000025
62000.0	66.9	-62.4		110.6	565.5	280.1	19.9	1.000025
62500.0	65.3	-62.3		107.9	565.7	350.6	10.9	1.000024
63000.0	63.7	-62.2		105.2	565.8	42.9	21.2	1.000023

STATION ALTITUDE 3989.00 FEET MSL
7 FEB. 80
ASCENSION NO. 59

UPPER AIR DATA
0230020059
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 7 (cont)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
63500.0	62.2	-62.1		102.6	566.0	55.0	35.7	1.000023
64000.0	60.7	-62.0		100.1	566.1	55.7	33.5	1.000022
64500.0	59.2	-61.9		97.6	566.2	50.0	22.4	1.000022
65000.0	57.8	-61.8		95.2	566.4	50.9	11.1	1.000021
65500.0	56.4	-61.7		92.9	566.5	261.8	11.0	1.000021
66000.0	55.0	-61.6		90.6	566.6	259.5	27.6	1.000020
66500.0	53.7	-61.5		88.4	566.8	256.8	36.3	1.000020
67000.0	52.4	-61.4		86.2	566.9	256.3	40.7	1.000019
67500.0	51.1	-61.3		84.1	567.0	256.4	43.1	1.000019
68000.0	49.9	-61.1		82.0	567.3	260.1	34.0	1.000018
68500.0	48.7	-59.7		79.5	569.2	266.5	25.1	1.000018
69000.0	47.5	-58.4		77.1	570.9	261.6	16.4	1.000017
69500.0	46.4	-58.4		75.3	570.9	321.3	10.8	1.000017
70000.0	45.3	-58.4		73.5	570.9	10.3	13.7	1.000016
70500.0	44.2	-58.4		71.7	571.0	9.9	15.7	1.000016
71000.0	43.2	-58.4		70.0	571.0	9.7	17.6	1.000016
71500.0	42.2	-58.3		68.4	571.0			1.000015
72000.0	41.2	-58.3		66.7	571.0			1.000015
72500.0	40.2	-58.3		65.1	571.0			1.000014
73000.0	39.2	-58.3		63.6	571.0			1.000014

STATION ALTITUDE 9989.00 FEET MSL
7 FEB. 60 1400 HRS MST
ASCENSION NO. 59

MANDATORY LEVELS
0980020059
WHITE SANLS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 8

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE		DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	4579.	15.0	-2.0	31.	262.2	14.3
800.0	6247.	10.2	-4.8	34.	274.3	27.9
750.0	7902.	5.2	-7.3	40.	281.4	42.8
700.0	9823.	-1.1	-9.0	51.	208.7	50.9
650.0	11753.	-5.2	-13.5	52.	277.5	41.0
600.0	13798.	-10.1	-18.3	51.	247.0	46.7
550.0	15980.	-13.9	-22.1	50.	250.6	66.4
500.0	18333.	-19.4	-36.6	20.	255.4	74.3
450.0	20871.	-25.8	-42.0	20.	263.0	77.1
400.0	23638.	-31.5	-44.2	27.	265.6	64.7
350.0	26603.	-39.9	-52.4	22.	263.4	91.7
300.0	30105.	-46.7			249.2	56.4
250.0	34045.	-47.5			254.9	80.2
200.0	38966.	-43.6			244.7	84.5
175.0	41897.	-46.8			259.2	80.5
150.0	45205.	-52.3			265.9	77.2
125.0	49022.	-57.5			267.0	60.1
100.0	53501.	-62.3			275.4	55.2
80.0	58153.	-60.0			274.9	9.4
70.0	60872.	-62.6			259.4	51.9
60.0	63995.	-62.0			54.0	29.2
50.0	67702.	-61.2			259.4	35.4
40.0	72301.	-58.3				

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.